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| APPLICATION NO.                                                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/750,314                                                       | 12/31/2003  | Pravin K. Johri      | ATT 2002-0400       | 1703             |
| 26652                                                            | 7590        | 09/20/2007           | EXAMINER            |                  |
| AT&T CORP.<br>ROOM 2A207<br>ONE AT&T WAY<br>BEDMINSTER, NJ 07921 |             |                      | SCIACCA, SCOTT M    |                  |
|                                                                  |             |                      | ART UNIT            | PAPER NUMBER     |
|                                                                  |             |                      | 2146                |                  |
|                                                                  |             |                      | MAIL DATE           |                  |
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|                                                                  |             |                      |                     | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/750,314             | JOHRI, PRAVIN K.    |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Scott M. Sciacca       | 2146                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 December 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,6,8 and 10-20 is/are rejected.
- 7) Claim(s) 4,5,7 and 9 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 December 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Method for network capacity planning with proper accounting of spare capacity".

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3, 13 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 3, 13 and 18, the limitation "minimizing an objective function" is unclear. It cannot be ascertained whether the intended meaning of "objective" is that which pertains to a purpose, goal or target, or whether it is something which is based on facts. Appropriate corrective action is required.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 10-11, 15-16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Benmohamed et al. (US 6,795,399).

Regarding Claims 1 and 11, Benmohamed teaches a method and apparatus for assisting capacity planning in a network having a plurality of links (“*Particularly, the invention includes methods and apparatus for: computing worst-case and optimistic link capacity requirements; optimizing network topology; and determining router placement within a network*” – See Abstract), said method comprising the steps of:

determining spare capacity on at least one link of the network, where said spare capacity is representative of an existing capacity plus an augmented capacity minus a bandwidth of all circuits routed on said at least one link of the network (“*In one embodiment, an iterative augmentation methodology is provided which attempts to reduce network costs by packing small -demands on the spare capacity of some existing links rather than introducing additional poorly utilized links into the network topology*” – See Col. 2, lines 26-31); and

computing an overall cost in accordance with said spare capacity for provisioning a circuit on said at least one link of the network (“*Particularly, an optimal network topology is formulated according to the invention which attempts to reduce overall network costs*” – See Col. 2, lines 24-26).

Regarding Claim 10, Benmohamed teaches the method of Claim 1 further comprising maintaining a minimum amount of said spare capacity for each of said links (See Col. 7, lines 25-35).

Claim 15 is rejected for the same reasons as Claim 10.

Regarding Claim 16, Benmohamed teaches a computer-readable medium having stored thereon a plurality of instructions (“Accordingly, the software instructions or code for performing the methodologies of the invention, described herein, may be stored in one or more of the associated memory devices” – See Col. 3, lines 33-36), the plurality of instructions including instructions which, when executed by a processor, cause the processor to perform the steps comprising of:

determining spare capacity on at least one link of the network, where said spare capacity is representative of an existing capacity plus an augmented capacity minus a bandwidth of all circuits routed on said at least one link of the network (“In one embodiment, an iterative augmentation methodology is provided which attempts to reduce network costs by packing small -demands on the spare capacity of some existing links rather than introducing additional poorly utilized links into the network topology” – See Col. 2, lines 26-31); and

computing an overall cost in accordance with said spare capacity for provisioning a circuit on said at least one link of the network (“Particularly, an optimal network topology is formulated according to the invention which attempts to reduce overall network costs” – See Col. 2, lines 24-26).

Claim 20 is rejected for the same reasons as Claim 10.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 6, 8, 12, 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,795,399) as applied to Claim 1 above, and further in view of Ngi et al. (US 2003/0158765).

Regarding Claim 2, Benmohamed teaches the method of Claim 1 but does not explicitly teach the method further comprising applying a benefit weight to said spare capacity. However, Ngi does teach applying a benefit weight to said spare capacity ("*In the method above, the business parameter is advantageously a cost. Some examples of such cost include: capital cost, operational cost, cost to own, cost to grow, cost to build, net present value, total cost of operation, and time value of money*" – See [0019]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of applying a benefit weight to the spare capacity of a link within the method of capacity planning in a network. Motivation for doing so would be to integrate link budget planning calculations with the network and business modeling phases (See Ngi, [0014]) in order to provide an improved network planning and network cost calculation process (See Ngi, [0013]).

Regarding Claim 6, Benmohamed in view of Ngi teaches the method of Claim 2. Additionally, Ngi teaches the method wherein said benefit weight accounts for a cost for financing said augmented capacity (“*In the method above, the business parameter is advantageously a cost. Some examples of such cost include: capital cost, operational cost, cost to own, cost to grow, cost to build, net present value, total cost of operation, and time value of money*” – See [0019]).

Regarding Claim 8, Benmohamed in view of Ngi teaches the method of Claim 2. Additionally, Ngi teaches the method wherein said benefit weight accounts for a discount period (See “Discounted Cash Flow”; “Time value of money” located in Table 2 on p. 10).

Claim 12 is rejected for the same reasons as Claim 2.

Claim 14 is rejected for the same reasons as Claim 6.

Claim 17 is rejected for the same reasons as Claim 2.

Claim 19 is rejected for the same reasons as Claims 6 and 8.

#### ***Allowable Subject Matter***

5. Claims 4-5, 7 and 9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 3, 13 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claims 3, 13 and 18, the prior art does not disclose or suggest using the exact formula recited in Claims 3, 13 and 18. Since the prior art does not disclose or suggest the formula, it also fails to disclose minimizing the formula in order to determine an overall cost.

Regarding Claims 7 and 9, the prior art does not disclose or suggest using the exact formula recited in Claims 7 and 9. Since the prior art does not disclose or suggest the formula, it also fails to disclose using the formula to express a benefit weight.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Sciacca whose telephone number is (571) 270-1919. The examiner can normally be reached on Monday thru Friday, 7:30 A.M. - 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS



JEFFREY PWU  
SUPERVISORY PATENT EXAMINER